Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) ~~The~~ A method for ~~of claim 15, wherein the step of~~ determining the ~~temperature of at least one rotor magnet comprises~~ output mechanical torque generated by an electric motor comprising:

sensing a local temperature inside the motor;

determining a temperature of at least one rotor magnet of the motor;

determining an offset between the local temperature at the location inside the motor and ~~the~~ a temperature of the rotor magnet;

receiving a temperature signal; ~~and~~

using the determined offset between the local temperature at the location inside the motor and the temperature of the rotor magnets and the received temperature signal to calculate ~~a~~ an actual temperature of the rotor magnets; and

calculating the output mechanical torque generated by the motor based upon the actual temperature.

17. (Original) The method of claim 16, wherein the receiving the temperature signal comprises receiving an analog signal.

18. (Original) The method of claim 16, wherein the receiving the temperature signal comprises receiving a digital signal.

19. (Original) The method of claim 16, wherein the step of determining the offset between the local temperature at the location inside the motor and the temperature of the rotor magnets comprises:

heating the rotor magnets to at least two different known temperatures;

sensing the corresponding local temperatures at the location inside the motor; and

using an interpolation algorithm to determine the offset between the local temperature at the location inside the motor and the temperature of the rotor magnets.

20. (Original) The method of claim 19, wherein the interpolation algorithm is based on a linear relationship.

21. (Currently Amended) The method of claim ~~20~~ 16, ~~further comprising the steps of:~~ wherein the step of determining the offset between the local temperature at the location inside the motor and the temperature of the rotor magnets comprises:

heating the rotor magnets to two known temperatures T_{M1} and T_{M2};

recording corresponding local temperatures at the T_{S1} and T_{S2} location inside the motor in response to the T_{M1} and T_{M2} temperatures, wherein T_{S1} is the recorded temperature at the known temperature T_{M1} and T_{M2} is the recorded temperature at the known temperature T_{M2}; and

determining ~~an~~ the actual temperature ~~T_M~~ (T_M) of the rotor magnets according to

$$T_M = [(T_{M2}-T_{M1})/(T_{S2}-T_{S1})]\cdot T_S+T_{M2}-[(T_{M2}-T_{M1})/(T_{S2}-T_{S1})]\cdot T_{S2},$$

where T_S is a subsequently sensed local temperature ~~at the location~~ inside the motor.

22. (Currently Amended) The method of claim 20, wherein the step of calculating the output mechanical torque generated by the motor comprises:

calculating the percent decrease in the output mechanical torque generated by the motor $\Delta\tau$ for ~~a determined~~ the actual temperature of the rotor magnets, T_M according to

$$\Delta\tau = (T_M - T_{M1})\cdot(\Delta B_r),$$

~~where $\tau_{r\ remaining}$ is the percent of motor torque remaining;~~ and

wherein T_M is a current temperature of the rotor magnets and ΔB_r is a decrease in a magnetic flux of a rotor magnet material; and

calculating an output mechanical torque generated by the motor for τ for a calculated percent of motor torque remaining according to

$$\tau = [k_{t\ (20^\circ C)} I_s] \cdot \tau_{remaining},$$

$\tau_{r\ remaining}$ is the percent of motor torque remaining

$k_{t\ (\text{~~20°C~~})\ (T^\circ C)}$ is a maximum torque constant of the motor, in/lbs-amp

T°C is a temperature in celsius degrees, and

I_S is a known input stator current.

23. (Currently Amended) The method of claim 22, wherein ~~k_t~~ T°C is ~~based on a temperature other than~~ 20°C.

24. (Cancelled)

25. (Cancelled)